



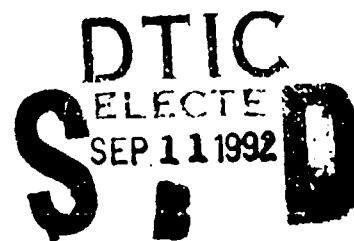
2

**NAVY HEALTH CARE PROVIDER ATTITUDES AND
PRACTICES CONCERNING PATIENT TOBACCO USE**

T. L. Conway

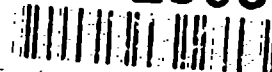
S. L. Hurtado

S. I. Woodruff



92 9 10 083

92-25035



391642

45 pr

Report No. 92-3

Approved for public release; distribution unlimited

NAVAL HEALTH RESEARCH CENTER
P.O. BOX 85122
SAN DIEGO, CALIFORNIA 92186-5122

NAVAL MEDICAL RESEARCH AND DEVELOPMENT COMMAND
BETHESDA, MARYLAND



Navy Health Care Provider Attitudes and Practices
Concerning Patient Tobacco Use^{1,2}

Terry L. Conway, PhD
Suzanne L. Hurtado, MPH
Susan I. Woodruff, MA

Naval Health Research Center
Health Sciences and Epidemiology Research Department
P. O. Box 85122
San Diego, California 92186-5122

¹ Report No. 92-3, supported by the Bureau of Naval Personnel (Pers-60), under Work Order No. N0002291WRWW549, and by the Naval Medical Research and Development Command, under Work Unit No. 63706N M0095.005-6106, Department of the Navy. The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, or the U.S. Government. Approved for public release, distribution unlimited.

² Special thanks are extended to CAPT William F. Bina III, MC, USN, for his supportive efforts and to the former Navy Surgeon General Vice Admiral James A. Zimble, MC, USN for his endorsement of this study.

EXECUTIVE SUMMARY

Problem

The Navy's goal is to create a healthy social and work environment that discourages the use of tobacco products, supports refraining from tobacco use, and provides tobacco users with encouragement and professional assistance to stop using tobacco products (SECNAVINST 6100.5). Furthermore, medical and dental health care providers (HCPs) have been directed to inquire about their patients' tobacco use during routine physical and dental examinations (SECNAVINST 5100.13A). Prior to this study, however, only limited and indirect estimates were available regarding the extent to which Navy HCPs follow guidelines for the provision of counseling and help for cessation of tobacco use. The present study was undertaken to survey providers directly regarding their attitudes and behaviors concerning patient tobacco use.

Objective

Two primary objectives of this study were to (a) determine the extent to which HCPs engage in Navy-mandated patient-care practices regarding tobacco use, and (b) assess HCPs' attitudes related to their role in reducing patient tobacco use.

Approach

Participants were identified using procedures to select a 50-percent random sample of Navy HCPs engaged in primary care. Completed surveys were received from 2,287 participants (overall response rate of 60.2%), and included 1,181 physicians, 548 dentists, 26 nurse practitioners, 19 physician assistants, and 513 independent duty corpsmen. The 41-item self-administered questionnaire, based on a survey developed by the National Cancer Institute (NCI), and an endorsement letter from the Navy Surgeon General were mailed to all participants in August 1991. Item content of the survey can be grouped into three categories: (a) practices of HCPs related to the tobacco use of their patients, (b) attitudes related to perceived responsibility of HCPs in helping patients to stop using tobacco, and (c) background information on the HCPs.

Results

Almost 80% of Navy HCPs reported that they usually asked new patients about tobacco use, although only about 50% of HCPs said they usually asked returning patients. Regarding the cessation-oriented practices recommended by the NCI and SECNAVINST 5100.13A, two-thirds to three-quarters of Navy HCPs engaged in four behaviors with most or all of their tobacco-using patients: advise patients to stop using tobacco, advise pregnant tobacco users of health risks to

AVAILABILITY Codes	
Dist	Special
A-1	

the fetus, inform patients of the benefits of quitting, and explain the dangers of using tobacco. About 40% of HCPs said that they recorded the results of tobacco use discussion in the records of most or all of their tobacco-using patients, and less than 15% of HCPs reported performing the other six NCI-recommended cessation strategies with most or all of their tobacco-using patients (i.e., assist patients in setting a quit date, develop a cessation plan, provide self-help materials, make referrals to cessation programs [only about half of HCPs said they had the information readily available], prescribe nicotine gum if appropriate, or arrange for follow-up visits).

The vast majority (87%) of HCPs felt that it is the provider's responsibility to help patients quit tobacco use; yet, a similarly high percentage (79%) believed that most tobacco users will not quit even with the HCPs' advice. On the other hand, 35% of HCPs rated themselves as at least somewhat successful in helping patients quit using tobacco; and, on the average, Navy HCPs estimated that they have helped about 9% of their tobacco-using patients to quit.

Considering the responses of the professional subgroups separately, several general patterns emerged. Higher percentages of NPs and PAs reported engaging in tobacco-related behaviors with their patients and having more positive attitudes regarding the role of the HCP in reducing patient tobacco use; physicians were intermediate, while dentists and IDCs tended to be the least likely among the subgroups to engage in most of these practices and have positive attitudes.

Recommendations

Research has indicated that HCPs are in a unique role for reaching tobacco users and helping them to quit. The application of a few relatively simple techniques by primary providers and office staff can result in significantly greater numbers of patients quitting. Furthermore, relatively brief training protocols to teach cessation techniques to providers and ancillary staff can increase and significantly enhance the quantity, quality, and effectiveness of counseling patients for tobacco cessation. Thus, it is recommended that concerted efforts be made to train all Navy HCPs to use the NCI's team approach for patient tobacco cessation (i.e., the "Four A's" approach for providers in conjunction with recommended ancillary staff procedures) and that organizational support to implement these procedures be mandated.

Navy Health Care Provider Attitudes and Practices Concerning Patient Tobacco Use

Cigarette smoking is often cited as the single most preventable cause of death and disability in the United States (Cummings, Rubin, & Oster, 1989; Fiore, Pierce, Remington, & Jones Fiore, 1990b; Orleans, 1985; Ravenholt, 1985; Schoenborn, 1989; Schwartz, 1987; US DHHS, 1982; US DHHS, 1988; US DHHS, 1989; US DHHS, 1990; US DHHS, 1991a). Smoking is responsible for more than one of every six American deaths, or about 390,000 each year, including 30% of all cancer deaths (87% of lung cancer deaths), 21% of deaths from coronary heart disease, 18% of stroke deaths, and 82% of deaths from chronic obstructive pulmonary disease (US DHEW 1979; US DHHS, 1989). Use of other forms of tobacco (e.g., cigars, pipes, and smokeless tobacco) also are associated with significantly elevated risks of death and disease (US DHHS, 1986a), as are the health hazards associated with "passive smoking" (US DHHS, 1986b).

On the positive side, cigarette smoking has decreased dramatically since the publication of the first Surgeon General's report linking cigarette smoking to illness and disease (US PHS, 1964). Smoking rates have steadily decreased from 40.7% (50.8% of men and 32.0% of women) in 1966 to 28.1% (30.8% of men and 25.7% of women) in 1988 (US DHHS, 1989; US DHHS, 1991b). However, the rate of decline still is not as steep as might be desired, especially in certain subgroups of the population. For example, although smoking prevalence decreased across all race-gender subgroups during 1974 through 1985, the rate of decrease was lower for women (especially black women) than men (Fiore, Novotny, Pierce, Hatziandreu, Patel & Davis, 1989). Also, although the prevalence of smoking declined across all educational levels, the rate of decline was almost five times lower among the least educated (0.19 percentage-point decline per year for those with less than a high school diploma) than among the highest educated (0.91 percentage-point decline per year for those with four years or more of college education) (Pierce, Fiore, Novotny, Hatziandreu, & Davis, 1989a). Furthermore, the rate of young people, especially women and the less educated, initiating the smoking habit has shown relatively poor improvement, with the equivalent of about 3,000 new young persons becoming regular smokers each day in 1985 (Pierce, Fiore, Novotny, Hatziandreu, & Davis, 1989b).

Much research has been conducted to assess the effectiveness of different techniques and programs to promote smoking cessation (Schwartz, 1987). However, recent research indicates

that about 90% of successful quitters (as well as 80% of unsuccessful quitters who subsequently relapse) quit on their own using individual methods of cessation rather than organized programs; and, in fact, 85% of successful quitters eventually stop smoking using the "cold turkey" approach (Fiore, Novotny, Pierce, Giovino, Hatziaandreu, Newcomb, Surawicz, & Davis, 1990a). This research underscores the importance of understanding the factors which motivate individuals to quit or at least try to quit tobacco use, as well as the factors related to successful quitting versus relapsing.

Health Care Providers and Patient Tobacco Use

A special analysis of data from the 1983 Health Interview Survey indicated that physicians have contact with at least 70% of all smokers each year (Ockene, 1987). Applying this statistic to data from the 1988 National Health Interview Survey--Occupational Health Supplement (US DHHS, 1991b), about 35 million adult U. S. smokers could be reached by physicians as part of ongoing medical care each year. In addition to the opportunity to come into contact with large numbers of smokers each year, physicians also may have a unique role in reaching smokers. Physicians are among the most respected and trusted of all professionals who come into contact with smokers. Furthermore, smoking patients may be especially sensitive to their own vulnerability during medical visits and be maximally susceptible and responsive to a physician's advice to quit (Davis, 1988; Ockene, 1987; Orleans, 1985; Fiore et al., 1990b; Hollis, Lichtenstein, Mount, Vogt, Stevens, 1991).

The important role of the physician and other health care providers in helping motivate smokers to quit has been documented in several studies. For example, data from the 1986 National Adult Use of Tobacco Survey (Centers for Disease Control, 1989) provided indirect evidence of the importance of the physician in helping smokers to quit. More than 70% of quitters (which included both succeeders and relapsers) had been urged by a doctor to quit smoking, whereas, only 46% of all smokers surveyed in this study had been advised by a physician to quit (Fiore et al., 1990a).

Additionally, seminal research conducted by Russell and colleagues in Great Britain (Russell, Wilson, Taylor, & Baker, 1979; Russell, Merriman, Stapleton, & Taylor, 1983) influenced the National Cancer Institute (NCI) to support a series of controlled intervention trials that have examined physician-initiated smoking cessation protocols. The overall results from

these trials have provided further support for the effectiveness of health care professionals in motivating patients to quit using tobacco (Glynn, Manley, & Pechacek, 1990). Taken as a whole, patients in the intervention groups in these trials were more likely to stop smoking than patients in the groups receiving usual care (Glynn et al., 1990).

For example, Cummings, Coates, Richard, Hansen, Zahnd, VanderMartin, Duncan, Gerbert, Martin, & Stein (1989) conducted a randomized trial of the "Quit for Life" program which trained HMO physicians to counsel patients about smoking cessation. This study tested whether physicians who received a continuing education program about how to counsel smokers to quit would counsel smokers more effectively and have higher rates of long-term smoking cessation among their patients who smoked compared to control group physicians and their patients. Physicians who had received the continuing education intervention discussed smoking with their patients more often and longer, helped six times as many patients set quit dates, and gave self-help materials to three times as many patients as did physicians in the control group. Findings indicated that setting a quit date is an effective method of inducing patients to attempt to quit smoking, with smokers who received quit dates from their physician or agreed to set dates being about four times more likely to attempt to quit. However, the strategies examined in this study were less effective in producing long-term (i.e., 1-year) abstinence. Generally comparable findings were found in a somewhat smaller but similarly designed study of private practice physicians (Cummings, Richard, Duncan, Hansen, Vander Martin, Gerbert, & Coates, 1989).

In two other NCI-sponsored trials, Cohen and his colleagues found that both a reminder system for counseling patients about smoking and prescribing nicotine gum were effective in changing physicians' and dentists' behaviors oriented toward promoting patient smoking cessation, as well as increasing 1-year abstinence rates among patients (Cohen, Stookey, Katz, Drook, & Christen, 1989; Cohen, Stookey, Katz, Drook, & Smith, 1989). In an intervention conducted by Wilson and colleagues (Wilson, Taylor, Gilbert, Best, Lindsay, Willms, & Singer, 1988), general practice physicians were randomly allocated to groups in which they gave smoking patients either usual care, usual care and nicotine gum, or nicotine gum along with advice to quit, setting a quit date, and four follow-up visits ("gum plus" condition). Using the criterion of at least three months of sustained abstinence at the one-year follow-up, patients in the "gum plus" condition had twice the quit rate of usual care patients. Furthermore, scheduling follow-up visits specifically to help with smoking cessation was significantly associated with an increased quit

rate, possibly indicating higher motivation to quit among patients who attended more follow-up visits (Wilson et al., 1988).

Taken as a whole, the physician-intervention trials supported by the National Cancer Institute provide support for the conclusion that the application of a few relatively simple techniques by physicians and their office staff can result in significantly greater numbers of their patients stopping smoking when the advice is given to all tobacco-using patients--not just the ones indicating interest in quitting (Glynn, Manley, & Pechacek, 1990; Glynn, 1990; Glynn & Manley, 1989). Furthermore, Schwartz's (1987) extensive review of smoking cessation strategies, including 231 clinical trials that had a one-year follow-up, concluded that physician interventions rated among the most effective with a median 1-year quit rate of 6% from minimal intervention (e.g., 2-3 minutes of advice), a 22% quit rate from more extensive intervention, and quit rates of 31% and 43% from interventions with pulmonary and cardiac patients, respectively.

Similarly, Kottke, Battista, DeFries & Brekke (1988) conducted a meta-analysis of 39 controlled intervention cessation trials which found that clinical interventions on the average produced 12-month quit rates that were six percentage points higher than control group quit rates. Predictors of both 6- and 12-month quit rates were similar with the most effective interventions employing more than one modality for motivating behavioral change (e.g., counseling or advice, nicotine chewing gum, written materials, other), involving both physician and nonphysicians in individualized face-to-face efforts, and providing the motivational message on multiple occasions over the longest possible time period. The meta-analysis results suggested that ongoing cues not to smoke are essential to continued abstinence (Kottke et al., 1988). These findings are consistent with the NCI's current guidelines to physicians for helping their patients stop smoking (Glynn & Manley, 1989). At each patient visit, physicians are advised to apply the "Four A's" approach--*Ask* about smoking; *Advise* smoking patients to stop; *Assist* smoking patients by setting a quit date, providing self-help materials, and prescribing nicotine gum/patch if appropriate; and *Arrange* follow-up visits (Manley, Epps, Husten, Glynn, Shopland, 1991).

Unfortunately, surveys of physicians' practices toward their tobacco-using patients indicate that many physicians do relatively little to get smoking patients to quit. Although recent surveys indicate that 90% or more of physicians report that they routinely ask about their patients' smoking status, substantially fewer physicians report that they counsel patients on strategies for quitting (Cummings, Stein, Hansen, Richard, Gerbert, & Coates, 1989; Ockene, Aney, Goldberg,

Klar, & William, 1988; Wechsler, Levine, Idelson, Rohman, & Taylor, 1983). Furthermore, reports by patients suggest that physicians may counsel their smoking patients less often than physicians perceive that they do (Anda, Remington, Sienko, & Davis, 1987; Cummings, Richard, Duncan, Hansen, Vander Martin, Gerbert, & Coates, 1989; Cummings, Coates, Richard, Hansen, Zahnd, VanderMartin, Duncan, Gerbert, Martin, & Stein, 1989; Wilson, et al., 1988).

Navy Concerns Regarding Tobacco Use

Ties between the U. S. military and the tobacco industry have been longstanding. During World War II, cigarette advertisements praising service men and women, including cigarette-using doctors, were widespread on leading radio programs and in periodicals; cigarettes were even included as part of the K-rations and C-rations provided to soldiers and sailors (Blake, 1985). Until the middle to late 1980's, when smoking was banned at most training commands across the various military services, giving or denying "smoke breaks" was a common form of reward and punishment used by drill instructors or company commanders training new soldiers or sailors (Cronan & Conway, 1989). It has been widely acknowledged in military circles that many young soldiers or sailors started smoking during their initial military training in order to participate in "smoke breaks" from work. Furthermore, a common image of soldiers or sailors has been that of a "hard drinking, heavy smoking, macho guy." And, in fact, this image has some empirical basis in data from several studies indicating that the military has higher rates of tobacco and alcohol use than that found in the civilian sector (Bray, Marsden, & Peterson, 1991; Bray, Guess, Marsden, & Herbold, 1989; Conway, Trent, & Conway, 1989; Ballweg & Bray, 1989; US DHHS, 1989).

During the 1980's, however, the Department of Defense (DOD) initiated efforts to curb tobacco use among military personnel. Consistent with DOD policy (DOD Directive 1010.10, 1986), the Navy's goal is to create a healthy social and work environment that discourages the use of tobacco products, supports refraining from tobacco use, and provides tobacco users with encouragement and professional assistance to stop using tobacco products (Secretary of the Navy, 1986b). To create a healthy social and work environment, several factors are emphasized, including support of tobacco-related policy by top leadership, maximum discouragement of tobacco use at initial entry and training points, education regarding nicotine addiction and the health risks associated with tobacco use, and restriction of tobacco use in Navy facilities

anywhere tobacco use might impair the health of nonusers of tobacco or endanger life or property (Secretary of the Navy, 1986a).

The Secretary of the Navy directive on tobacco prevention (1986a) also specifically directs medical and dental health care providers to inquire about their patients' tobacco use during routine physical and dental examinations. Health care providers are instructed to advise tobacco users of the risks associated with tobacco use, the benefits of stopping, and where to obtain assistance. Additionally, they are to advise all pregnant tobacco users of the health risks to the fetus and tell pregnant users where to obtain assistance to stop using tobacco.

Although previous research has provided indirect estimates about how well Navy physicians are complying with official policy (Conway, Hurtado, & Woodruff, In Press--1993), the present study was undertaken to survey Navy health care providers directly regarding their attitudes and behaviors concerning patient tobacco use. A questionnaire modeled after one developed by the NCI was distributed to a random Navy sample of health care providers. Two primary objectives of this study were to (a) determine the extent to which primary health care providers in the Navy engage in mandated patient-care practices regarding tobacco use, which include the NCI's suggested "Four A's" approach (Glynn & Manley, 1989), and (b) assess health care providers' attitudes related to their role in reducing patient tobacco use. Such information should help Navy health promotion and medical policy makers develop and implement maximally effective methods for helping Navy members reduce their tobacco use.

Method

Participants

Target participants were identified using procedures to select a 50-percent random sample of Navy health care professionals (HCPs), which included 2,802 physicians, 930 dentists, 40 physician assistants (PAs), 41 nurse practitioners (NPs), and 722 independent duty corpsmen (IDCs). In addition to sampling physicians and dentists, nurse practitioner subspecialties, physician assistants, and independent duty corpsmen were selected to obtain a comprehensive sample of health care professionals who provide most of the primary patient care for Navy personnel. The sample was identified using enlisted classification and officer designator codes from March 1991 master personnel tapes maintained by the Bureau of Naval Personnel (BUPERS).

Of the 4,535 HCPs originally selected to participate, 734 were excluded from the study because their surveys were undeliverable due either to relocation with no available forwarding address, retirement, or end of active-duty service. Completed surveys were received from 2,287 participants, resulting in an overall response rate of 60.2%. Subgroup sample sizes and corresponding response rates (in parentheses) for the primary HCP subgroups included 1,181 (53.6%) physicians, 548 (65.9%) dentists, 26 (70.3%) nurse practitioners, 19 (59.4%) physician assistants, and 513 (73.8%) independent duty corpsmen. IDCs, NPs, and dentists all had substantially higher response rates than did physicians.

Procedures

The survey and an endorsement cover letter from the Navy Surgeon General were mailed to all target participants in August 1991. Approximately four weeks after the surveys were mailed, targeted participants were sent a postcard thanking those who had returned their surveys and encouraging those who had not to complete and return the survey or request that another be sent if they had misplaced or not received the original. In addition, updated addresses were obtained for 186 of 920 originally targeted participants whose surveys were returned by the U.S. Post Office as undeliverable mail; surveys were re-sent to these individuals.

Measures

The Naval Health Research Center (NHRC) survey used in this study, titled "Health Care Professional Survey: Attitudes and Practices Concerning Tobacco Use," is a 41-item, self-administered questionnaire (Appendix A). This survey was based on one developed by the NCI for studying physicians and dentists as part of the Community Intervention Trial for Smoking Cessation (COMMIT) project (Lindsay, Ockene, Berger, Giffen, Hymowitz, Pomrehn, & Pechacek, 1992; Mattson, Cummings, Lynn, Giffen, Corle, Pechacek, 1990-91). The NHRC survey also incorporated items from a study of civilian physicians and dentists in California (Crooks, Elder, & Kenney, 1991). Item content of the NHRC survey can be grouped into three general categories: (a) practices of Navy HCPs related to the tobacco use of their patients, (b) attitudes of HCPs related to their perceived responsibility in helping patients stop using tobacco, and (c) background information on the HCPs.

Practices. Two questions queried the HCP regarding the frequency of routinely asking new and return patients about their tobacco use, using response options of 1 = never, or almost never, 2 = sometimes, 3 = usually, and 4 = always, or almost always. Participants also were asked if their command had a "routine system" for identifying tobacco-using patients by glancing at the patient's medical chart. Another series of questions asked participants to estimate the proportion of their tobacco-using patients with whom they practiced each of eleven specific smoking cessation-related behaviors, which included practices encompassing the "Four A's" approach recommended by NCI (Glynn & Manley, 1989) as well as other behaviors mandated by the Secretary of the Navy (1986a). These questions included the following practices: (a) explain the dangers of using tobacco, (b) advise to stop using tobacco, (c) get the patient to set a quit date, (d) help to develop a cessation plan, (e) inform the patient of the benefits of quitting, (f) provide self-help quit materials, (g) make a referral to a tobacco-cessation program, (h) recommend nicotine chewing gum, (i) arrange a follow-up visit, (j) record results of tobacco use discussion in medical/dental record, and (k) advise pregnant tobacco users of health risks to the fetus. Participants responded using a 4-point scale from 1 = none, 2 = some, 3 = most, and 4 = all to indicate the proportion of their patients with whom they practiced these behaviors. HCPs also were asked to estimate how much time they spent with a patient when trying to help him/her quit using tobacco, as well as whether they had participated in any activity, outside of the office, to educate people about tobacco use.

Several other items asked about HCPs perceived preparedness to counsel patients to stop using tobacco. Participants rated how well prepared they felt on a 4-point scale from 1 = definitely unprepared, 2 = not well prepared, 3 = adequately prepared, and 4 = very well prepared. HCPs answered "no" or "yes" to questions about whether they had information readily available for patients who needed a referral to a tobacco cessation program and whether they had received any formal training during the last year in tobacco use cessation approaches to use with patients. Two additional items were asked regarding the HCP's success in helping patients stop using tobacco. HCPs rated their perceived success using a 4-point scale from 1 = very unsuccessful, 2 = somewhat unsuccessful, 3 = somewhat successful, and 4 = very successful; and they estimated the percentage of their tobacco-using patients that they had helped quit.

Attitudes. The survey also included six items taken from a California study (Crooks et al., 1991) to assess participants' attitudes toward the HCP's role in reducing patient tobacco use. The

following statements were included: (a) the HCP's time can be much better spent doing other things than trying to reduce tobacco use in patients, (b) most people will not give up tobacco even if their HCP tells them to, (c) it is the HCP's responsibility to help patients who wish to stop using tobacco accomplish this, (d) it is the HCP's responsibility to attempt to convince patients who use tobacco to stop, (e) people have enough problems without adding to them by trying to give up tobacco, and (f) HCPs should be more active than they have been in speaking before lay groups about tobacco use. Participants responded to these statements using a 4-point scale from 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, and 4 = strongly agree.

Background information. Demographic information about the HCP as well as tobacco-related questions about the HCP's patients were included. Demographic information included sex, age, paygrade, type of duty station, professional specialty, year graduated from professional school, and tobacco use status (including cigarette smoking and use of smokeless tobacco). Questions about the HCP's patients included the average number of patients seen per week, the average number of smokers and smokeless tobacco users seen per week, and the percentage of their patients that are referrals from other health care professionals. It should also be noted that the first question on the survey asked whether the HCP saw patients on a regular basis and, if not, the reason why not (e.g., in an administrative position, teaches, conducts research, consults). HCPs who did not see patients on a regular basis were asked to complete only the second section of the survey containing demographic information.

Statistical Analyses

Primary statistical analysis was to obtain frequency distributions, percentages, means, and standard deviations. Descriptive results are presented for the total sample as well as for five professional subgroups: physicians, dentists, physicians assistants, nurse practitioners, and independent duty corpsmen. All analyses were conducted using the SPSS-X package (SPSS, Inc., 1988).

Results

Respondent Characteristics

Table 1 provides descriptive information for the total sample and each of the professional subgroups. Women comprised 11% of the total sample, which is very similar to the percentage

seen in the Navy at large; however, the percentage of women across the professional subgroups varied from zero in the PA group to 67% in the NP group. The mean age of the total sample was 37.5 years with a mean range across subgroups from 36.2 (IDCs) to 41.6 (NPs) years. The median paygrade was O4 (Lieutenant Commander). The largest percentage of respondents were stationed at a naval hospital (37.5%) followed by a sea duty command (15.7%) or a dental clinic (14.9%). Of the overall sample, 85% reported that they saw patients on a regular basis, although the percentage varied across professional subgroups from 70% of NPs to 100% of PAs. The most commonly reported reason for not seeing patients regularly was because of being in an administrative position. The median year that respondents graduated from professional school was 1983 with a median range across subgroups from 1979 (NPs) to 1985 (IDCs). The most common medical specialties among physicians were general medicine (15%), family practice (13%), and internal medicine (8%).

Descriptive information on the tobacco use of both patients and HCPs is provided in Table 2. HCPs in the total sample typically saw 51 patients per week, ranging from 28 per week for IDCs to 82 per week for PAs. Overall, HCPs estimated that 38% of their patients were smokers and that 15% of their patients used smokeless tobacco (estimates are consistent with findings from a large random sample of Navy personnel examined in 1988 [Conway, Trent, & Conway, 1989]). Only 8.8% of all HCPs in this sample reported themselves as current smokers, although the highest percentage was found for the IDC subgroup (29.2% smokers), which is comprised of all enlisted personnel whereas the other subgroups are comprised of officers. The discrepancy in smoking rates between the enlisted HCP subgroup and the officer subgroups is consistent with the more general finding that enlisted personnel are more likely to smoke than are officers (Conway et al., 1989). Current use of smokeless tobacco among HCPs was under 2% for the overall sample as well as for each professional subgroup except IDCs (3% smokeless users).

HCP Practices Concerning Patient Tobacco Use

Five survey items asked about general practices of HCPs related to patients' tobacco use. As indicated in Table 3, only 32% of all HCPs reported that their command used a routine system to identify tobacco-using patients in their medical charts. However, there was substantial variability across professional subgroups with only 20% of physicians compared to almost 73%

Table 1

Background characteristics by professional subgroups

Item	Overall	Professional Subgroups				
		Medical Corps	Dental Corps	PA	NP	IDC
Sex (%)						
Male	88.9	87.5	89.3	100	33.3	93.3
Female	11.1	12.5	10.7	.0	66.7	6.7
<u>n</u>	2189	1151	531	23	18	466
Age (years)						
Mean	37.5	37.5	38.5	40.1	41.6	36.2
SD	7.56	8.34	7.48	5.64	4.52	5.25
Range	21-68	24-68	25-59	31-51	34-50	21-52
<u>n</u>	2238	1178	537	25	20	478
Pay grade						
Median	O4	O4	O4	W4	O4	E7
Range	E5-O8	O1-O8	O3-O6	W2-O3	O3-O6	E5-E9
<u>n</u>	2240	1178	538	19	20	485
Duty station type (%)						
Dental clinic	14.9	.1	62.1	.0	.0	.0
Medical clinic	10.7	10.4	.0	24.0	45.0	21.3
Naval hospital	37.5	62.2	6.0	52.0	30.0	11.5
Sea duty	15.7	6.9	11.4	4.0	5.0	43.4
FMF	5.0	3.2	11.8	.0	.0	2.3
Staff duty	3.1	3.4	1.7	.0	.0	4.2
Other	13.1	13.8	7.1	20.0	20.0	17.3
<u>n</u>	2237	1178	535	25	20	479
See patients regularly? (%)						
No	15.0	15.6	6.8	.0	30.0	22.8
Yes	85.0	84.4	93.2	100	70.0	77.2
<u>n</u>	2211	1156	532	25	20	478
If no, reason don't see patients regularly (%)						
Conduct research	.0	.0	.0	.0	.0	.0
Teach	.4	.7	.0	.0	.0	.0
Consult	12.9	23.4	.0	.0	.0	2.0
Administrative	62.0	44.1	76.7	.0	20.0	86.7
Other	24.7	31.7	23.3	100	80.0	11.2
<u>n</u>	279	145	30	1	5	98

Table 1 (Continued)

Background characteristics by professional subgroups

Item	Overall	Professional Subgroups				
		Medical Corps	Dental Corps	PA	NP	IDC
Year graduated						
Median	1983	1984	1980	1983	1979	1985
Range	1948-91	1948-91	1959-90	1974-91	1964-90	1957-91
n	2181	1171	536	23	20	431
Medical specialty (Medical Corps only) (%)						
Family practice		13.4				
General medicine		15.1				
Internal medicine		8.2				
Cardiology		.6				
Pneumonology		1.0				
Obstetrics/Gynecology		3.5				
Osteopathic medicine		.9				
Other		57.3				
n		1204				

of dentists reporting that their command used a routine system to identify tobacco users. HCPs more routinely asked new patients about their tobacco use than they asked returning patients. About 79% of all HCPs reported that they "usually" or "always or almost always" asked new patients about their tobacco use; however, only 51% of HCPs similarly asked returning patients about their tobacco use. Of the professional subgroups, PAs and NPs most consistently asked patients--both new and returning--about their tobacco use; dentists and IDCs asked patients about tobacco use somewhat less than the other professional subgroups. Overall, 14.2% of HCPs indicated that they did not even try to help patients quit using tobacco. Those HCPs that did try spent an average of 12 minutes with patients discussing tobacco cessation; however, nearly half (48%) indicated that they spent five minutes or less discussing tobacco cessation. On the average, dentists spent the least time (just under 7 minutes) and PAs, IDCs, and NPs the most time (15-16 minutes) with patients when trying to help them quit using tobacco. Very few Navy

Table 2
Descriptive information on tobacco use of patients and health care professionals

Item	Overall	Professional Subgroups				
		Medical Corps	Dental Corps	PA	NP	IDC
Average number of patients seen per week						
Mean	51	59	50	82	81	28
SD	40.0	43.8	33.3	45.2	24.9	24.9
Range	0-450	0-450	0-300	30-220	40-125	0-200
<u>n</u>	1995	1047	511	25	15	397
Average number of smokers seen per week						
Mean	18	20	19	34	16	11
SD	16.0	17.0	14.8	25.6	13.4	11.4
Range	0-117	0-100	0-117	8-100	0-40	0-100
<u>n</u>	1956	1022	499	25	14	396
Average percentage of patients that smoke						
Mean percent	37.6	36.3	37.7	41.7	19.4	41.5
SD	19.0	19.8	16.5	20.1	14.8	19.4
<u>n</u>	1927	1012	496	25	14	380
Average number of smokeless tobacco users seen per week						
Mean	7	6	10	9	2	6
SD	10.2	10.5	10.1	8.6	3.7	9.1
Range	0-100	0-100	0-80	0-40	0-10	0-100
<u>n</u>	1944	1007	504	25	14	394
Average percentage of patients that use smokeless tobacco						
Mean percent	15.5	10.9	20.3	11.8	3.3	22.1
SD	17.0	14.6	16.9	11.9	4.8	19.5
<u>n</u>	1918	998	503	25	14	378
HCPs' cigarette smoking status (%)						
Never smoked	66.3	76.0	74.0	44.0	50.0	36.1
Ex-smoker	24.9	21.3	22.1	48.0	50.0	34.7
Current smoker	8.8	2.8	3.9	8.0	.0	29.2
<u>n</u>	2260	1190	538	25	20	487
HCPs' smokeless tobacco use status (%)						
Never used	90.7	92.7	92.8	84.0	95.0	83.7
Ex-user	7.5	5.9	6.3	16.0	5.0	12.3
Current user	1.8	1.4	.9	.0	.0	3.9
<u>n</u>	2261	1191	539	25	20	486

Table 3
General practices concerning patient tobacco use by professional subgroups

Item	Overall	Professional Subgroups				
		Medical Corps	Dental Corps	PA	NP	IDC
Command uses a routine system to identify tobacco-using patients in chart? (%)						
No	67.7	80.0	27.3	72.0	57.1	87.3
Yes	32.3	20.0	72.7	28.0	42.9	12.7
n	1985	1037	509	25	14	400
Routinely ask <u>new</u> patients about their tobacco use? (%)						
1. Never, almost never	4.0	4.1	5.7	.0	.0	2.0
2. Sometimes	17.2	14.3	19.3	12.0	13.3	22.6
3. Usually	26.2	24.1	23.8	16.0	13.3	35.7
4. Always, almost always	52.6	57.5	51.2	72.0	73.3	39.7
Mean	3.27	3.35	3.21	3.60	3.60	3.13
SD	.88	.87	.94	.71	.74	.83
n	2009	1054	512	25	15	403
Routinely ask <u>returning</u> patients about their tobacco use? (%)						
1. Never, almost never	9.7	8.3	14.1	.0	.0	8.7
2. Sometimes	38.8	35.6	47.8	24.0	33.3	36.9
3. Usually	31.2	34.2	22.0	36.0	40.0	34.7
4. Always, almost always	20.2	21.9	16.1	40.0	26.7	19.7
Mean	2.62	2.70	2.40	3.16	2.93	2.65
SD	.91	.90	.92	.80	.80	.89
n	1997	1046	510	25	15	401
Average number of minutes spent with a patient when trying to help him/her quit using tobacco						
Do not try (%)	14.2	13.1	14.0	4.2	13.3	17.7
Mean number of minutes*	12.3	13.7	6.6	16.2	15.2	16.0
SD*	28.2	30.4	15.1	18.3	14.3	34.7
n	1978	1035	508	24	15	396
Participate in outside educational activities (%)						
No	87.7	86.6	91.7	76.0	46.7	87.9
Yes	12.3	13.4	8.3	24.0	53.3	12.1
n	1998	1053	509	25	15	396

* "Do not try" category not included in Mean and SD

HCPs (12% overall) participated in any activities outside of their usual work to educate people about tobacco use, although this varied by professional subgroup with 53% of NPs and 24% of PAs participating in outside tobacco education activities.

HCPs also were asked to estimate the proportion of their tobacco-using patients with whom they engaged in 11 different cessation-oriented practices. Table 4 indicates the percentages of HCPs who indicated that they performed a particular behavior with "most" or "all" of their tobacco-using patients (see Appendix B for more detailed response breakdowns by professional subgroups). The four practices that HCPs most commonly reported performing with most or all of their tobacco-using patients were to (1) advise to stop using tobacco (reported by 78% of HCPs), (2) advise pregnant tobacco users of health risks to the fetus (71% of HCPs), (3) inform the patient of the benefits of quitting (69% of HCPs), and (4) explain the dangers of using tobacco (67% of HCPs). Less than half (41%) of HCPs recorded the results of tobacco use discussion in the records of most or all of their tobacco-using patients. The other six NCI-recommended cessation strategies were reported by only 5-15% of HCPs as performed for most or all of their tobacco-using patients. Considering all the cessation-oriented practices, NPs, followed closely by PAs, were the most likely of the subgroups to engage in these practices with most or all of their tobacco-using patients. Dentists and IDCs tended to be the least likely among the subgroups to engage in cessation-oriented practices.

HCP Perceived Preparedness and Success

Five survey items asked providers about their preparedness for counseling patients to stop using tobacco and their perceived success in helping patients stop tobacco use. As shown in Table 5, less than 8% of all HCPs indicated that they had had any formal training during the past year in tobacco cessation approaches, although the percentages were higher among the NPs and PAs. Overall, 25% of HCPs reported that they did not feel well prepared to counsel patients to stop using tobacco. The sense of unpreparedness was most prevalent among IDCs (32%) and dentists (31%). Only about half of HCPs reported that the information they needed to refer patients to tobacco cessation programs was readily available; dentists (33%) were least likely to have referral information and NPs (71%), IDCs (66%), and PAs (63%) were most likely to have such information.

Table 4

Percent of professional subgroups who perform specific cessation-oriented practices with "most" or "all" of tobacco-using patients

Practice	Overall ^a	Professional Subgroups				
		Medical Corps ^b	Dental Corps ^c	PA ^d	NP ^e	IDC ^f
Advise to stop	77.7	84.2	67.8	88.0	93.3	71.6
Advise pregnant users	70.9	80.2	63.3	91.3	92.9	54.2
Inform of benefits	69.2	75.4	60.1	76.0	80.0	63.6
Explain the dangers	67.2	73.1	64.1	80.0	86.7	53.9
Record results	41.3	42.4	42.7	56.0	66.7	34.1
Provide materials	15.4	17.5	4.5	20.0	53.3	22.0
Make a referral	15.4	18.3	7.9	24.0	53.3	15.3
Develop a plan	13.1	18.9	4.0	12.0	28.6	9.3
Recommend gum	12.9	14.1	5.2	20.0	26.7	18.3
Arrange F/U visit	5.1	6.8	1.0	8.0	6.7	5.5
Set a quit date	5.1	7.7	1.0	8.0	13.3	2.8

^a *n* ranged from 1921 to 2003

^b *n* ranged from 1003 to 1050

^c *n* ranged from 499 to 512

^d *n* ranged from 23 to 25

^e *n* ranged from 14 to 15

^f *n* ranged from 377 to 401

On the whole, 65% of HCPs reported feeling unsuccessful in helping patients quit using tobacco, although this perception varied across professional subgroups. Dentists (72%) and IDCs (68%) were most likely to feel unsuccessful, and NPs (27%) and PAs (52%) were the least likely to report feeling unsuccessful helping tobacco-using patients quit. Overall, HCPs estimated that they had helped about 9% of their tobacco-using patients quit. Physicians, NPs, and PAs estimated helping somewhat higher percentages of tobacco-using patients (11%, 13%, and 10%, respectively) than did dentists and IDCs (6% and 5%, respectively).

HCP Attitudes Concerning Patient Tobacco Use

Six survey items measured HCPs degree of agreement or disagreement with statements reflecting the HCP's attitudes and role in reducing patient tobacco use (see Appendix C for

Table 5

Perceived preparedness and success in helping tobacco-using patients quit

Item	Overall	Professional Subgroups				
		Medical Corps	Dental Corps	PA	NP	IDC
Formal training during past year in tobacco use cessation approaches (%)						
No	92.4	93.2	92.7	84.0	73.3	91.3
Yes	7.6	6.8	7.3	16.0	26.7	8.7
<u>n</u>	2003	1054	509	25	15	400
Preparedness in counseling patients to stop using tobacco (%)						
1. Definitely unprepared	2.1	1.6	2.8	8.0	.0	2.1
2. Not well prepared	23.2	18.3	28.1	20.0	13.3	30.2
3. Adequately prepared	54.0	53.3	56.5	48.0	40.0	53.7
4. Very well prepared	20.7	26.9	12.6	24.0	46.7	14.0
Mean	2.93	3.05	2.79	2.88	3.33	2.80
SD	.72	.72	.69	.88	.72	.70
<u>n</u>	1929	1008	494	24	15	387
Referral information readily available (%)						
No	49.0	46.9	66.6	37.5	28.6	33.6
Yes	51.0	53.1	33.4	62.5	71.4	66.4
<u>n</u>	2000	1054	509	24	14	399
Success in helping patients quit using tobacco (%)						
1. Very unsuccessful	23.8	21.3	27.7	8.0	.0	27.3
2. Somewhat unsuccessful	41.2	39.8	44.8	44.0	26.7	40.8
3. Somewhat successful	33.9	37.7	26.5	44.0	73.3	31.1
4. Very successful	1.1	1.2	1.0	4.0	.0	.8
Mean	2.12	2.19	2.01	2.44	2.73	2.05
SD	.78	.78	.76	.71	.46	.78
<u>n</u>	1960	1023	502	25	15	395
Percent of tobacco-using patients that health care professional helped quit						
None (%)	26.2	21.5	29.0	.0	23.1	36.0
Mean percent	8.7	11.4	6.0	10.0	13.5	4.9
SD	12.8	14.5	9.8	7.9	12.8	9.4
<u>n</u>	1888	978	479	24	13	394

Table 6

Percent of professional subgroups who agreed (either "somewhat" or "strongly")
with statements reflecting the HCP's role in reducing patient tobacco use

Statement	Overall ^a	Professional Subgroups				
		Medical Corps ^b	Dental Corps ^c	PA ^d	NP ^e	IDC ^f
It is the provider's responsibility to help patients quit	86.8	89.0	84.4	84.0	93.4	84.1
It is the provider's responsibility to convince patients to quit	83.4	87.1	78.9	92.0	93.4	78.2
Providers should be more active in speaking about tobacco use	80.5	82.9	80.2	88.0	86.7	74.2
Most people won't quit even with advice	78.9	72.8	86.2	88.0	53.4	86.3
Time can be better spent doing other things	31.8	23.7	42.2	28.0	7.1	41.2
People have enough problems without adding to them	5.9	4.6	5.7	4.0	.0	9.7

^a \bar{n} ranged from 1975 to 1991

^b \bar{n} ranged from 1035 to 1046

^c \bar{n} ranged from 504 to 509

^d \bar{n} = 25

^e \bar{n} ranged from 14 to 15

^f \bar{n} ranged from 394 to 396

specific response breakdowns by professional subgroups). As shown in Table 6, over 80% of HCPs agreed (either "somewhat" or "strongly") with three statements: (a) it is the HCP's responsibility to help patients who wish to stop using tobacco to accomplish this (87%); (b) it is the HCP's responsibility to convince patients who use tobacco to stop (83%); and (c) HCPs should be more active than they have been in speaking before lay groups about tobacco use (81%). However, almost as many HCPs (79%) also believe that most people will not give up tobacco even if the HCP advises them to do so, and 32% of HCPs feel that their time can be

much better spent doing other things than trying to reduce tobacco use in patients. However, very few HCPs (6%) agree with the notion that people already have enough problems and that they should not add to them by trying to give up tobacco use. Considering the professional subgroups, NPs tended to have the highest rates of endorsement of statements reflecting the perceived responsibility and the important role of HCPs in reducing patient tobacco use; IDCs and dentists tended to have the lowest rates of endorsement among the professional subgroups.

Navy Versus Civilian Physician Practices

Findings from the COMMIT project physician survey (Lindsay et al., 1992) provided data for comparing Navy and civilian physicians on the relative frequency of engaging in cessation-oriented practices with tobacco-using patients. The COMMIT project provides a good comparison group for the Navy sample because very similar questionnaires were used and both studies were conducted within about one year of each other. As shown in Figure 1, civilian and

Cessation Practices

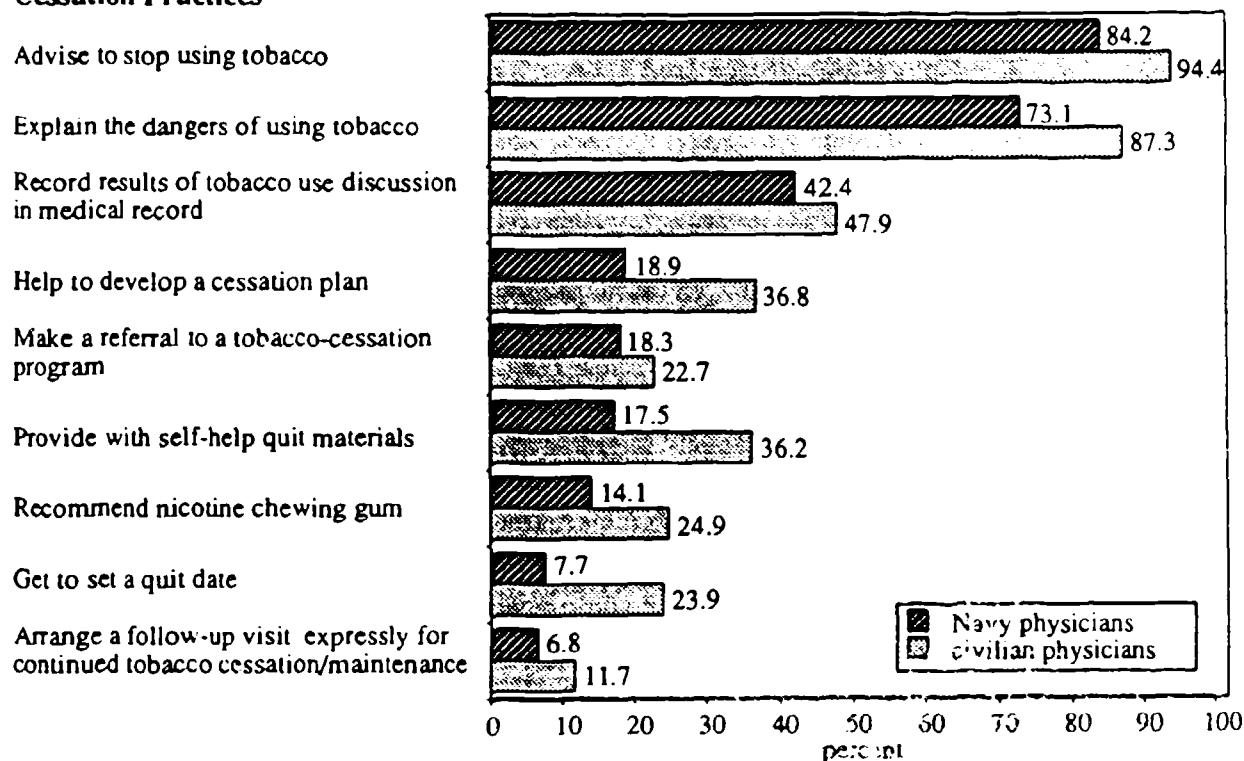


Figure 1. Percent of Navy and civilian physicians who perform selected cessation-oriented practices with "Most" or "All" of tobacco-using patients (Navy *n* ranged from 1003 to 1050; civilian *n* ranged from 461 to 470).

Navy physicians are very similar in terms of their relative pattern of practices related to the tobacco use of patients. However, Navy physicians reported engaging in cessation-oriented practices somewhat less, in general, than did their civilian counterparts.

Discussion

This study gathered information from a random sample of primary health care providers in the Navy to assess the extent to which they were engaging in patient-care practices regarding tobacco use (including behaviors recommended in the NCI's "Ask, Advise, Assist, and Arrange" approach), as well as attitudes related to the HCP's role in reducing patient tobacco use. Overall, almost 80% of Navy HCPs reported that they usually asked new patients about their tobacco use, although only about 50% of HCPs said they usually asked returning patients. Of 11 cessation-oriented practices recommended by the Secretary of the Navy and NCI, 67-78% of Navy HCPs engaged in four behaviors with most or all of their tobacco-using patients: advise to stop using tobacco, advise pregnant tobacco users of health risks to the fetus, inform patient of the benefits of quitting, and explain the dangers of using tobacco. Less than half of HCPs said that they recorded the results of tobacco use discussion in the records of most or all of their tobacco-using patients. Furthermore, the other six NCI-recommended cessation strategies were reported by only 5-15% of HCPs as performed for most or all of their tobacco-using patients.

These self-reported findings on HCPs' practices indicate that, in general, Navy HCPs are highly likely to engage in two of the NCI's recommended "Four A's"--*Ask* about tobacco use and *Advise* patients to stop. However, HCPs are highly unlikely to engage in the other two categories of behaviors in the "Four A's" approach--*Assist* patients in stopping tobacco use and *Arrange* follow-up visits to further assist in tobacco cessation. That is, very few HCPs (5-15%) reported that they assisted most or all of their tobacco-using patients in setting a quit date, developing a cessation plan, providing self-help materials, making referrals to cessation programs (only about half said they even had the information readily available), or prescribing nicotine gum if appropriate; just 5% of HCPs reported arranging for follow-up visits for most or all of their tobacco-using patients.

The vast majority (87%) of HCPs felt that it is the provider's responsibility to help patients quit tobacco use; yet, a similarly high percentage (79%) believe that most tobacco users will not quit even with the HCPs' advice. On the other hand, 35% of HCPs rate themselves as

at least somewhat successful in helping patients quit using tobacco; and, on the average, Navy HCPs estimate that they have helped about 9% of their tobacco-using patients to quit.

Considering the responses of the professional subgroups separately, some general patterns emerged that were fairly consistent. For example, across most of the practices and attitudes included in the survey, higher percentages of NPs and PAs reported engaging in tobacco-related behaviors with their patients and having more positive attitudes regarding the role of the HCP in reducing patient tobacco use; physicians were intermediate, while dentists and IDCs tended to be the least likely among the subgroups to engage in most of these practices and have positive attitudes.

Comparison of Navy and Civilian Physicians

Several surveys of civilian physicians have been conducted (Crooks et al., 1991; Cummings, Stein, Hansen, Richard, Gerbert, & Coates, 1989; Fortmann, Sallis, Magnus, & Farquhar, 1985; Lindsay et al., 1992; Ockene et al., 1988; Orleans, George, Houpt, & Brodie, 1985; Valente, Sobal, Muncie, Levine, Antlitz, 1982; Wechsler et al., 1983). Comparisons across studies are sometimes difficult either because survey items and responses are worded slightly differently or because findings are presented differently across reports. However, after comparing Navy and civilian physicians where possible, two general conclusions can be drawn. First, civilian and Navy physicians are very similar in terms of the relative pattern of their practices related to the tobacco use of patients. Second, Navy physicians tend to engage in cessation-oriented practices somewhat less, in general, than do their civilian counterparts.

Findings from the COMMIT project physician survey (Lindsay et al., 1992) provided probably the best available comparison data because of the high degree of similarity in the questionnaires used and because both studies were conducted within about one year of each other. As indicated in Figure 1, the relative pattern of cessation-oriented practices is strikingly similar between Navy and civilian physicians. In fact, if "make a referral" is ignored there is a perfect rank-order correlation between the percentages of civilian and Navy physicians reporting that they engaged in eight cessation-oriented practices with "most" or "all" of their patients. Also shown in Figure 1 is the general finding that fewer Navy physicians reported engaging in tobacco-related practices with their patients than did civilian physicians.

An important factor that may in large part explain the lower percentages of Navy physicians engaging in cessation-oriented practices may be the basic differences in the patient population seen by Navy physicians compared to civilian physicians. The Navy is populated predominantly by relatively young men (85% of active duty Navy members are 35 years of age or younger and 90% are men). Previous research has suggested that young males are the least likely to receive advice to quit smoking (Anda et al., 1987; Frank, Winkleby, Altman, Rockhill & Fortmann, 1991). It is likely that a large proportion of physicians--both civilian and Navy--inquire about tobacco use largely as a diagnostic aid and that counseling for tobacco cessation is more likely to occur with patients who already have tobacco-related (or potentially related) illness, have other cardiovascular risk factors, or are in other at-risk groups (e.g., women who are pregnant or use oral contraceptives). Thus, given the predominantly young male patient population they are treating, the lower percentages of Navy physicians engaging in tobacco-cessation practices with their patients may actually reflect the current training and orientation of U.S. physicians in general, rather than any true differences between civilian and Navy doctors in their basic beliefs and values regarding patient tobacco use.

Limitations of the Study

Several limitations of the study should be considered when evaluating the results presented here. A definite concern is the robustness of findings for the NPs and PAs. Results for these subgroups may not represent stable estimates due to the unavoidably small sample sizes for these groups (there currently are very few NPs and PAs in the total Navy). However, data on NPs and PAs were reported here to provide preliminary information indicative of differences between them and other professional subgroups in attitudes and practices regarding patient tobacco use. As expected, even in these small samples, trends in the results indicated that NPs and PAs were among the most likely to endorse positive attitudes and engage in a variety of practices oriented toward the cessation of tobacco use among their patients.

Another concern was the lack of information from nonrespondents. Although the response rate for this survey was comparable to some surveys of physicians (e.g., Orleans et al., 1985; Fortmann et al., 1985), it was somewhat lower than others (e.g., Wechsler et al., 1983; Ockene et al., 1988; Wells, Lewis, Leake, Schleiter, & Brook, 1986). If nonrespondents failed to return the survey because they had poorer attitudes regarding the role of the HCP in helping tobacco-

using patients or because they had poorer practices related to patient tobacco use, the findings presented here may overrepresent positive practices/attitudes and underrepresent poorer practices/attitudes among Navy HCPs. Despite the less than ideal response rate, however, the fact that findings were generally consistent with those from similar surveys suggests that the overall results reflecting strengths and weaknesses in attitudes and behaviors probably indicate accurate patterns.

Another concern regarding the validity of these findings is that all the data were self-reports by HCPs on a paper-and-pencil survey. In this study, it was not feasible to conduct unobtrusive observations to check the validity of HCPs' self-reports on their behavior. Thus, it is likely that some of the findings are inflated in a "socially desirable" direction. However, even if there is a positive bias reflected in some of the results, overall patterns of findings still indicate strengths and weaknesses in practices oriented toward patient tobacco use. Additionally, a study is currently being conducted in the local San Diego area to assess Navy provider practices regarding tobacco use from the patients' perspective. This study will provide interesting comparison data to contrast the HCPs' and patients' perceptions of practices oriented toward cessation of tobacco use among patients. Previous research has shown that there is substantial divergence in physician and patient reports regarding tobacco-related discussion in the provider-patient encounter (Anda et al., 1987; Fortmann et al., 1985; Hollis, et al., 1991; Ockene et al., 1988; Valente et al., 1982; Wechsler, et al., 1983; Fiore, et al., 1990a). Thus, comparing data from similarly worded surveys given to both physicians and patients should provide useful data regarding communication between doctor and patient in this important area.

Conclusions/Recommendations

Smoking-related illnesses cost the U.S. health care system more than \$65 billion annually. (US DHHS, 1991a). The per capita economic impact of smoking is estimated to cost every man, woman, and child living in the United States \$221 per person per year. It is striking to note that the number of Americans who die each year of diseases caused by smoking exceeds the number of Americans who died in World War II (US DHHS, 1990).

While over 50 million Americans still smoke, it has been estimated that over 90 million would now be smoking in the absence of smoking-related changes that have occurred since the 1964 release of the landmark report of the Surgeon General's Advisory Committee of Smoking

and Health. Quitting and noninitiation of smoking between 1964 and 1985 was associated with the postponement or avoidance of almost three-quarters of a million smoking related deaths and is expected to be associated with saving an additional 2.1 million lives between 1986 and 2000 (US DHHS, 1989). Health care professionals are in a unique position to contribute to a substantial increase in that number if they increase activities aimed at getting their patients to stop using tobacco.

Relatively brief training protocols to teach smoking-cessation techniques for physicians to use with their tobacco-using patients can increase and significantly enhance the quantity, quality, and effectiveness of patient smoking cessation counseling by physicians. For example, training physicians in activities related to patient smoking cessation has been shown to increase time devoted to giving smoking cessation advice, use of chart reminders to give stop-smoking advice, prescription of nicotine gum, use of patient referrals to outside smoking programs, number of follow-up appointments devoted to smoking, distribution of self-help materials, and frequency of establishing patient quit-smoking dates (Glynn, Manley, & Pechacek, 1990; Cummings, Richard, Duncan, Hansen, Vander Martin, Gerbert, & Coates, 1989; Cummings, Coates, Richard, Hansen, Zahnd, VanderMartin, Duncan, Gerbert, Martin, & Stein, 1989; Cohen, Stookey, Katz, Drook, & Smith, 1989; Cohen, Stookey, Katz, Drook, & Christen, 1989; Wilson et al., 1988).

Training physicians in new approaches to use with tobacco-using patients can also help physicians deal with a number of the commonly cited barriers to involvement in patient tobacco cessation (e.g., lack of time, training, support staff, and backup materials/programs; Glynn, Manley, Pechacek, 1990). Some of the NCI trials have developed protocols for brief training in techniques which can take no more than two or three minutes (or less) per visit. Such training can also identify a wide variety of excellent materials and programs that can be further recommended to support and reinforce the advice of the physician, as well as provide advice for office support staff who can give the administrative and technical help needed to implement the cessation protocols (Glynn, Manley, Pechacek, 1990; Glynn & Manley, 1989; Manley et al., 1991).

Relatively minimal efforts on the part of physicians have been estimated to be highly cost-effective (Cummings, Rubin, & Oster, 1989). Using a conservative cost-effectiveness model, in which assumed parameters included intervention/control differences as small as 1% (and only

2.7% on the average) and a 4-minute (rather than 2 or 3 minute) physician intervention, physician-delivered smoking cessation counseling has been estimated to be more cost-effective than other common preventive medicine practices (e.g., treatment for hypertension or hypercholesterolemia). This cost-effectiveness assessment should be encouraging to physicians who often are discouraged by low success rates in counseling patients to stop smoking (Cummings, Stein, Hansen, Richard, Gerbert, & Coates, 1989; Ockene et al., 1988; Wechsler et al., 1983). Both the economic perspective and the fact that some patients receiving counseling to quit tobacco will live longer, healthier lives should alleviate much of the discouragement resulting from the relatively low numbers of tobacco-using patients that actually do quit as a result of physicians' and office staff's counseling (Cummings, Rubin, & Oster, 1989; Glynn, Manley, & Pechacek, 1990).

Recommendations for the Navy. The Navy is in a unique position to reach tobacco users and help them quit via their HCPs. Because of the organizational structure of the Navy, highly effective regulations and guidelines can readily be implemented. For example, as a result of regulations already in place, 100% of Navy medical facilities are "smoke-free." This can be contrasted with findings from a study of California physicians (Crooks et al., 1991) which found that only 82% had "no smoking" policies in their offices for staff and 94% had "no smoking" policies for patients. Furthermore, Navy-mandated regulations implemented in health-care settings are guaranteed to reach virtually all Navy members because of the regularity of required "well checks" irrespective of sick visits (e.g., all Navy personnel are required to have a dental check-up once a year and routine physical examinations are required at specific intervals depending on a person's age and particular job). An added benefit to implementing such regulations in health-care facilities such as naval hospitals is that tobacco-using dependents and other civilian beneficiaries also will be reached.

Practices of Navy HCPs oriented toward reducing tobacco use are important not only for the health and well-being of service personnel but also are important because of the potential long-term impact on the civilian sector. Considering recent attrition trends, approximately 160,000 individuals leave the Navy each year, of whom an estimated 64,000 are smokers reclaiming civilian status. In just over 15 years this can amount to roughly one million additional civilian smokers. However, to the extent that Navy HCPs can reduce the number of Navy smokers who transition to civilian smokers, a substantial impact can be made in reducing the

long-term costs due to smoking-related morbidity, disability, and death that is more likely to occur when individuals are older civilians than when they are younger military personnel. Furthermore, considering that the Navy represents only about 28% of the total number of active duty members of the U.S. Department of Defense (i.e., Army, Navy, Marine Corps, and Air Force), an even greater impact on the civilian sector could be made if all the military services made a concerted effort to substantially reduce tobacco use among U.S. military personnel.

Thus, as outlined below, it is recommended that all Navy HCPs be trained to use the NCI's team approach for patient tobacco cessation (Glynn & Manley, 1989; Manley et al., 1991), and that organizational support to implement these procedures be mandated.

Physicians, dentists, physician assistants, nurse practitioners, and independent duty corpsmen should use the "Four A's" approach:

1. Ask about tobacco use at every opportunity.
2. Advise all tobacco users to stop.
3. Assist the patient in stopping by helping to set a quit date, providing self-help materials, prescribing nicotine gum/patch if appropriate, and possibly signing a cessation contract.
4. Arrange followup visits to help the patient with cessation, maintenance, or relapse.

Ancillary providers and office staff should follow these procedures:

1. Select a tobacco cessation coordinator who will be responsible for seeing that the office/department's cessation program is carried out.
2. Create a tobacco-free office [already in effect in Navy medical facilities].
3. Identify all patients who use tobacco; include tobacco use as part of a "vital signs" stamp or use stickers on medical charts to identify tobacco users; track progress.
4. Review self-help materials and nicotine gum/patch use (if prescribed) with each tobacco-using patient.
5. Assist the primary provider in making followup visits and contacts (e.g., by mail or telephone) specifically regarding tobacco cessation, maintenance, or relapse.

References

- Anda RF, Remington PL, Sienko DG, & Davis RM. Are physicians advising smokers to quit? The patient's perspective. Journal of the American Medical Association. 1987;257:1916-1919.
- Ballweg JA, & Bray RM. Smoking and tobacco use by U.S. military personnel. Military Medicine. 1989;154:165-168.
- Blake GH. Smoking and the military. New York State Journal of Medicine. 1985;85:354-356.
- Bray RM, Marsden ME, & Peterson MR. Standardized comparisons of the use of alcohol, drugs, and cigarettes among military personnel and civilians. American Journal of Public Health. 1991;81:865-869.
- Bray RM, Guess LL, Marsden ME, & Herbold JR. Prevalence, trends, and correlates of alcohol use, nonmedical drug use, and tobacco use among U.S. military personnel. Military Medicine. 1989;154:1-11.
- Centers for Disease Control. Tobacco Use in 1986: Methods and Basic Tabulations From Adult Use of Tobacco Survey. Rockville, Md: US Dept of Health and Human Services; 1989.
- Cohen SJ, Stookey GK, Katz BP, Drook CA, & Christen AG. Helping smokers quit: A randomized controlled trial with private practice dentists. Journal of the American Dental Association. 1989;118:41-45.
- Cohen SJ, Stookey GK, Katz BP, Drook CA, & Smith DM. Encouraging primary care physicians to help smokers quit: A randomized, controlled trial. Annals of Internal Medicine. 1989;110:648-652.
- Conway TL, Hurtado SL, & Woodruff SI. Tobacco use prevention and cessation programs in the U. S. Navy. Public Health Reports. In Press--1993.
- Conway TL, Trent LK, & Conway SW. Physical readiness and lifestyle habits among U. S. Navy personnel during 1986, 1987, and 1988. Technical Report No. 89-24. San Diego, CA, Naval Health Research Center, 1989.
- Cronan TA, & Conway TL. Evaluation of smoking interventions in recruit training. Military Medicine. 1989;154:371-375.
- Crooks CE, Elder JP, & Kenney E. Independent evaluation of efforts to prevent and control tobacco use in California: Annual Report. San Diego, CA: Center for Behavioral and

- Community Health Studies, School of Public Health, San Diego State University; 1991, pp. 147-169.
- Cummings SR, Coates TJ, Richard RJ, Hansen B, Zahnd EG, VanderMartin R, Duncan C, Gerbert B, Martin A, & Stein MJ. Training physicians in counseling about smoking cessation: A randomized trial of the "Quit for Life" program. Annals of Internal Medicine. 1989;110:640-647.
- Cummings SR, Richard RJ, Duncan CL, Hansen B, Vander Martin R, Gerbert B, & Coates TJ. Training physicians about smoking cessation: A controlled trial in private practices. Journal of General Internal Medicine. 1989;4:482-489.
- Cummings SR, Rubin SM, & Oster G. The cost-effectiveness of counseling smokers to quit. Journal of the American Medical Association. 1989;261:74-79.
- Cummings SR, Stein MJ, Hansen B, Richard RJ, Gerbert B, & Coates TJ. Smoking counseling and preventive medicine: A survey of internists in private practices and a health maintenance organization. Archives of Internal Medicine. 1989;149:345-349.
- Davis RM. Uniting physicians against smoking: The need for a coordinated national strategy. Journal of the American Medical Association. 1988;259:2900-2901.
- Department of Defense: DOD Directive 1010.10, Health Promotion (NOTAL). Washington, DC, Department of Defense, 11 March 1986.
- Fiore MC, Novotny TE, Pierce JP, Hatziaudreu EJ, Patel KM, & Davis RM. Trends in cigarette smoking in the United States: The changing influence of gender and race. Journal of the American Medical Association. 1989;261:49-55.
- Fiore MC, Novotny TE, Pierce JP, Giovino GA, Hatziaudreu EJ, Newcomb PA, Surawicz TS, & Davis RM. Methods used to quit smoking in the United States. Journal of the American Medical Association. 1990a;263:2760-2765.
- Fiore, MC, Pierce JP, Remington PL, & Jones Fiore B. Cigarette smoking: The clinician's role in cessation, prevention, and public health. Disease-a-Month. 1990b;36(4):186-242.
- Fortmann SP, Sallis JF, Magnus PM, & Farquhar JW. Attitudes and practices of physicians regarding hypertension and smoking: The Stanford Five City Project. Preventive Medicine. 1985;14:70-80.

- Frank E, Winkleby MA, Altman DG, Rockhill B, & Fortmann SP. Predictors of physicians' smoking cessation advice. Journal of the American Medical Association. 1991;266:3139-3144.
- Glynn TJ. Methods of smoking cessation--finally, some answers. Journal of the American Medical Association. 1990;263:2795-2796.
- Glynn TJ, & Manley MW. How To Help Your Patients Stop Smoking: A National Cancer Institute Manual for Physicians. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health. NIH Publication No. 89-3064. Bethesda, Maryland: National Cancer Institute, 1989.
- Glynn TJ, Manley MW, & Pechacek TF. Physician-initiated smoking cessation program: the National Cancer Institute trials. In: Engstrom PF, Rimer B, Mortenson LE, eds. Advances in Cancer Control: Screening and Prevention Research. New York, NY: Wiley-Liss, Inc. 1990;339:11-25.
- Hollis JF, Lichtenstein E, Mount K, Vogt TM, & Stevens VJ. Nurse-assisted smoking counseling in medical settings: Minimizing demands on physicians. Preventive Medicine. 1991;20:497-507.
- Kottke TE, Battista RN, DeFries GH, & Brekke ML. Attributes of successful smoking cessation interventions in medical practice. A meta-analysis of 89 controlled trials. Journal of the American Medical Association. 1988;259(19):2882-2889.
- Lindsay EA, Ockene J, Berger L, Giffen C, Hymowitz N, Pomrehn P, & Pechacek T. Doctors and smoking cessation: A survey of office procedures and practices. Submitted for publication, 1992.
- Manley M, Epps RP, Husten C, Glynn T, & Shopland D. Clinical interventions in tobacco control: A National Cancer Institute training program for physicians. Journal of the American Medical Association. 1991;266:3172-3173.
- Mattson ME, Cummings KM, Lynn WR, Giffen C, Corle D, & Pechacek T. Evaluation plan for the Community Intervention Trial for Smoking Cessation (COMMIT). International Quarterly of Community Health Education. 1990-91;11:271-290.
- Ockene JK. Physician-delivered interventions for smoking cessation: Strategies for increasing effectiveness. Preventive Medicine. 1987;16:723-737.

- Ockene JK, Aney J, Goldberg RJ, Klar JM, & William JW. A survey of Massachusetts physicians' smoking intervention practices. American Journal of Preventive Medicine. 1988;4:14-20.
- Orleans CT. Understanding and promoting smoking cessation: Overview and guidelines for physician intervention. Annual Review of Medicine. 1985;36:51-61.
- Orleans CT, George LK, Houpt JL, & Brodie KH. Health promotion in primary care: A survey of U. S. family practitioners. Preventive Medicine. 1985;14:636-647.
- Pierce JP, Fiore MC, Novotny TE, Hatziandreu EJ, & Davis RM. Trends in cigarette smoking in the United States: Educational differences are increasing. Journal of the American Medical Association. 1989a;261:56-60.
- Pierce JP, Fiore MC, Novotny TE, Hatziandreu EJ, & Davis RM. Trends in cigarette smoking in the United States: Projections to the year 2000. Journal of the American Medical Association. 1989b;261:61-65.
- Ravenholt RT. Tobacco's impact on twentieth-century U.S. mortality patterns. American Journal of Preventive Medicine. 1(4):4-16, 1985.
- Russell MAH, Wilson C, Taylor C, & Baker CD. Effect of general practitioners' advice against smoking. British Medical Journal. 1979;2:231-235.
- Russell MAH, Merriman R, Stapleton J, & Taylor W. Effect of nicotine chewing gum as an adjunct to general practitioners' advice against smoking. British Medical Journal. 1983;287:1782-1785.
- Schoenborn CA, & Boyd GM.. Smoking and Other Tobacco Use: United States, 1987. National Center for Health Statistics. Vital and Health Statistics, 10(169), 1989.
- Schwartz JL. Review and Evaluation of Smoking Cessation Methods: The United States and Canada, 1978-1985. National Institutes of Health (NIH) Publication No. 87-2940. National Cancer Institute: Rockville, Maryland, 1987.
- Secretary of the Navy. SECNAV INSTRUCTION 5100.13A, Tobacco Prevention Program in the Navy and Marine Corps. Washington, DC, Department of the Navy, 17 July 1986a.
- Secretary of the Navy. SECNAV INSTRUCTION 6100.5, Health Promotion Program. Washington, DC, Department of the Navy, 17 September 1986b.
- SPSS Inc. SPSS-X User's Guide, 3rd ed. Chicago, IL, SPSS Inc., 1988.

- U.S. Department of Health, Education, and Welfare. Smoking and Health. A Report of the Surgeon General. U.S. Department of Health, Education, and Welfare, Public Health Service, Office of the Assistant Secretary for Health, Office on Smoking and Health. DHEW Publication No. (PHS) 79-50066, 1979.
- U.S. Department of Health and Human Services. The Health Consequences of Smoking: Cancer. A Report of the Surgeon General. U.S. Department of Health and Human Services, Public Health Service, Office on Smoking and Health. DHHS Publication No. (PHS) 82-50179, 1982.
- U.S. Department of Health and Human Services. The Health Consequences of Using Smokeless Tobacco. A Report of the Advisory Committee to the Surgeon General, 1986. U.S. Department of Health and Human Services, Public Health Service. NIH Publication No. 86-2874, April 1986a.
- U.S. Department of Health and Human Services. The Health Consequences of Involuntary Smoking. A Report of the Surgeon General. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control. DHHS Publication No. (CDC) 87-8398, 1986b.
- U.S. Department of Health and Human Services. The Health Consequences of Smoking: Nicotine Addiction. A Report of the Surgeon General, 1988. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Health Promotion and Education, Office on Smoking and Health. DHHS Publication No. (CDC) 88-8406, 1988.
- U.S. Department of Health and Human Services. Reducing the Health Consequences of Smoking: 25 years of Progress. A Report of the Surgeon General. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No. (CDC) 89-8411, 1989.
- U.S. Department of Health and Human Services. Smoking and Health: A National Status Report (2nd Edition). A Report to Congress. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No. (CDC) 87-8396 (Revised 02/90), 1990.

- U.S. Department of Health and Human Services. Healthy People 2000: National Health Promotion and Disease Prevention Objectives. U.S. Department of Health and Human Services, Public Health Service. DHHS Publication No. (PHS) 91-50213, 1991a.
- U.S. Department of Health and Human Services. Cigarette smoking among adults--United States, 1988. Morbidity and Mortality Weekly Report. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control. 1991b;40:757-759,765.
- U.S. Public Health Service. Smoking and Health. Report of the Advisory Committee to the Surgeon General of the Public Health Service. U.S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control. PHS Publication No. 1103, 1964.
- Valente CM, Sobal J, Muncie HL Jr, Levine DM, & Antlitz AM. Health Promotion: Physicians' beliefs, attitudes, and practices. American Journal of Preventive Medicine. 1982;2:82-88.
- Wechsler H, Levine S, Idelson RK, Rohman M, & Taylor JO. The physician's role in health promotion--a survey of primary-care practitioners. The New England Journal of Medicine. 1983;308:97-100.
- Wells KB, Lewis CE, Leake B, Schleiter MK, & Brook RH. The practices of general and subspecialty internists in counseling about smoking and exercise. American Journal of Public Health. 1986;76:1009-1013.
- Wilson DM, Taylor DW, Gilbert JR, Best JA, Lindsay EA, Willms DG, & Singer J. A randomized trial of a family physician intervention for smoking cessation. Journal of the American Medical Association. 1988;260:1570-1574.

Health Care Professional Survey - Attitudes and Practices Concerning Tobacco Use

Please darken in the circle next to your response unless otherwise indicated.

Privacy Act Statement: Authority 5 USC 301. Information will be solicited to enhance basic medical knowledge and aspects of clinical preventive services for research purposes only. Participation is voluntary. No rights or benefits will be affected by nonparticipation.

1. Do you see patients on a regular basis?
☐ No ☐ Yes
- If "Yes", please go to Section I, question #1
- If you do not see patients on a regular basis, please go to Section II, question #1
2. Please indicate the reason that you do not see patients on a regular basis. Mark only one.
- ☐ I conduct research ☐ I consult ☐ Other, (specify) _____
- ☐ I teach ☐ I am in an administrative position

Section I

ATTITUDES AND PRACTICES CONCERNING PATIENT TOBACCO USE

1. When you see new patients, do you routinely ask them about their tobacco use? (i.e., cigarettes, cigars/pipes, smokeless tobacco)
☐ Never or almost never ☐ Usually
☐ Sometimes ☐ Always or almost always
2. When you see patients whom you have seen before, do you routinely ask them about their tobacco use?
☐ Never or almost never ☐ Usually
☐ Sometimes ☐ Always or almost always
3. At your command is their a routine system to identify a tobacco-using patient by glancing at his/her chart?
☐ No ☐ Yes

4. With what proportion of your patients who use tobacco do you do any of the following?

	NONE	SOME	MOST	ALL
a Explain the dangers of using tobacco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b Advise to stop using tobacco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c Get to set a quit date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d Help to develop a cessation plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e Inform the patient of the benefits of quitting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f Provide with self-help quit materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g Make a referral to a tobacco-cessation program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h Recommend nicotine chewing gum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i Arrange a follow-up visit expressly for continued tobacco cessation/maintenance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j Record results of tobacco use discussion in medical/dental record	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k Advise pregnant tobacco users of health risks to the fetus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How well prepared do you feel when counseling patients to stop using tobacco?

6. On the average, how much time do you spend with a patient when you try to help him/her quit using tobacco?
- ☐ Do not try
- | | | | | | | | | | | | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| | | | | | | | | | | | | | | | | | | | | |
- MINUTES
7. If a person needed a referral to a tobacco cessation program, would you have the information readily available for the patient?
- ☐ No ☐ Yes

8. During the past year, did you receive any formal training in tobacco use cessation approaches to use with your patients?
☐ No ☐ Yes
9. During the past year, did you participate in any activity, outside of your office, to educate people about tobacco use?
☐ No ☐ Yes

10. What percentage of your patients are referrals to you from other health care professionals?
- ☐ Less than 50% ☐ 50% or more

- 11.** On the average, how many patients do you see per week?
- | | | | | | | | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|----|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | |
| | 600 | 500 | 400 | 300 | 200 | 100 | 50 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
- PATIENTS
- ☐ None

12. On the average, how many smokers do you see per week?
- ☐ None
- | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
- SMOKERS

13. On the average, how many smokeless tobacco users do you see per week? ☐ None
- | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
- SMOKELESS TOBACCO

14. How successful do you feel you are in helping your patients to quit using tobacco?

☐ Very unsuccessful ☐ Somewhat unsuccessful ☐ Somewhat successful ☐ Very successful

15. What percentage of your tobacco-using patients have you helped quit?

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

TOBACCO USING PATIENTS

☐ None

16. Please indicate the extent to which you agree or disagree with each of the following statements.

	STRONGLY DISAGREE	SOMEWHAT DISAGREE	SOMEWHAT AGREE	STRONGLY AGREE
a. The health care provider's time can be much better spent doing other things than trying to reduce tobacco use in patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Most people will not give up tobacco even if their health care provider tells them to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. It is the health care provider's responsibility to help patients who wish to stop using tobacco to accomplish this.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. It is the health care provider's responsibility to attempt to convince patients who use tobacco to stop.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. People have enough problems without adding to them by trying to give up tobacco.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Health care providers should be more active than they have been in speaking before lay groups about tobacco use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

37

4. Professional Specialty (mark only one)

- ☐ Family Practice
☐ General Medicine/Primary Care
☐ Internal Medicine
☐ Cardiology
☐ Pneumology
☐ Obstetrics/Gynecology
☐ Osteopathic Medicine
☐ Other medical specialty
☐ Dentistry, specify _____
☐ Nursing, specify _____
☐ Physician Assistant
☐ Independent Duty Corpsman

5. Paygrade:

- ☐ F-5 ☐ W-1 ☐ O-1 ☐ O-6
☐ E-6 ☐ W-2 ☐ O-2 ☐ O-7
☐ E-7 ☐ W-3 ☐ O-3 ☐ O-8
☐ E-8 ☐ W-4 ☐ O-4 ☐ O-9
☐ E-9 ☐ O-5 ☐ O-10

6. What is your current Duty Station? (mark only one)

- ☐ Naval Dental Clinic ☐ Sea Duty
☐ Naval Medical Clinic ☐ FMF Duty
☐ Naval Hospital ☐ Staff duty (e.g. BuMed, NMPC, NEMPU, etc.)
☐ Other _____

7a. What is your current cigarette smoking status?

- ☐ Never smoked ☐ Ex-smoker ☐ Current smoker

b. What is your smokeless tobacco use status?

- ☐ Never used ☐ Ex-user ☐ Current user

Thank you for your participation.

If you have questions, contact Dr. Terry L. Conway at (619) 553-8465 (AV 553-8465). Please seal this completed survey in the postpaid enclosed envelope and drop in the mail. Our address is:

Commanding Officer
 Naval Health Research Center
 ATTN: Code 24, Dr. T. Conway
 P.O. Box 85122
 San Diego, CA 92186-5122

Section II BACKGROUND INFORMATION

1. Year graduated from professional school:

19

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

 YEAR GRADUATED

2. Age:

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

 YEARS OLD

3. Sex:

☐ Male
☐ Female

Appendix B

Percent of Navy health care professionals who perform cessation-oriented practices
with tobacco-using patients

Practice	proportion of tobacco-using patients				Mean	SD	n
	None (1)	Some (2)	Most (3)	All (4)			
<u>Overall</u>							
Advise to stop	2.3	20.1	29.6	48.1	3.23	.85	2000
Advise pregnant users	18.2	10.9	13.1	57.8	3.11	1.18	1921
Inform of benefits	4.6	26.2	36.9	32.3	2.97	.88	1994
Explain the dangers	3.0	29.9	39.1	28.1	2.92	.83	2003
Record results	25.6	33.2	22.5	18.8	2.34	1.05	1998
Provide materials	46.7	37.9	11.1	4.3	1.73	.82	1977
Make a referral	36.9	47.8	11.5	3.9	1.82	.78	1989
Develop a plan	39.3	47.5	10.7	2.4	1.76	.74	1975
Recommend gum	35.5	51.7	10.3	2.6	1.80	.72	1988
Arrange F/U visit	67.1	27.9	3.8	1.3	1.39	.63	1985
Set a quit date	53.6	41.3	4.0	1.1	1.52	.63	1967
<u>Medical Corps</u>							
Advise to stop	2.1	13.7	27.7	56.5	3.39	.80	1047
Advise pregnant users	10.3	9.6	13.2	67.0	3.37	1.02	1003
Inform of benefits	3.6	20.9	38.0	37.4	3.09	.85	1047
Explain the dangers	3.3	23.5	39.1	34.0	3.04	.84	1050
Record results	23.9	22.7	24.4	18.0	2.37	1.04	1048
Provide materials	44.7	37.8	12.6	4.9	1.78	.85	1033
Make a referral	33.3	48.4	13.9	4.4	1.89	.80	1042
Develop a plan	29.9	51.2	15.7	3.2	1.92	.76	1039
Recommend gum	31.1	54.8	11.4	2.7	1.86	.72	1044
Arrange F/U visit	63.7	29.5	5.4	1.4	1.45	.66	1041
Set a quit date	46.4	46.0	6.3	1.4	1.63	.66	1031

Appendix B (Continued)

Practice	proportion of tobacco-using patients				Mean	SD	n
	None (1)	Some (2)	Most (3)	All (4)			
<u>Dental Corps</u>							
Advise to stop	2.9	29.3	33.0	34.8	3.00	.87	512
Advise pregnant users	19.0	17.7	17.1	46.2	2.91	1.18	504
Inform of benefits	6.3	33.6	35.2	24.9	2.79	.89	506
Explain the dangers	2.7	33.2	41.2	22.9	2.84	.80	512
Record results	25.8	31.4	19.5	23.2	2.40	1.11	512
Provide materials	65.4	30.1	3.3	1.2	1.40	.62	508
Make a referral	53.2	38.9	5.3	2.6	1.57	.71	509
Develop a plan	62.5	33.5	3.0	1.0	1.42	.60	499
Recommend gum	48.2	46.6	4.6	.6	1.57	.61	504
Arrange F/U visit	78.3	20.7	.8	.2	1.23	.45	508
Set a quit date	68.3	30.8	.4	.6	1.33	.52	504
<u>Physician assistants</u>							
Advise to stop	.0	12.0	32.0	56.0	3.44	.71	25
Advise pregnant users	4.3	4.3	.0	91.3	3.78	.74	23
Inform of benefits	.0	24.0	52.0	24.0	3.00	.71	25
Explain the dangers	.0	20.0	48.0	32.0	3.12	.73	25
Record results	.0	44.0	40.0	16.0	2.72	.74	25
Provide materials	12.0	68.0	4.0	16.0	2.24	.88	25
Make a referral	12.0	64.0	16.0	8.0	2.20	.76	25
Develop a plan	16.0	72.0	8.0	4.0	2.00	.64	25
Recommend gum	16.0	64.0	12.0	8.0	2.12	.78	25
Arrange F/U visit	36.0	56.0	8.0	.0	1.72	.61	25
Set a quit date	32.0	60.0	8.0	.0	1.76	.60	25

Appendix B (Continued)

Practice	proportion of tobacco-using patients				Mean	SD	n
	None (1)	Some (2)	Most (3)	All (4)			
<u>Nurse practitioners</u>							
Advise to stop	.0	6.7	20.0	73.3	3.67	.62	15
Advise pregnant users	.0	.0	7.1	92.9	3.93	.27	14
Inform of benefits	.0	20.0	33.3	46.7	3.27	.80	15
Explain the dangers	.0	13.3	60.0	26.7	3.13	.64	15
Record results	6.7	26.7	40.0	26.7	2.87	.91	15
Provide materials	13.3	33.3	40.0	13.3	2.53	.92	15
Make a referral	13.3	33.3	33.3	20.0	2.60	.99	15
Develop a plan	7.1	64.3	28.6	.0	2.21	.58	14
Recommend gum	33.3	40.0	20.0	6.7	2.00	.93	15
Arrange F/U visit	53.3	40.0	6.7	.0	1.53	.64	15
Set a quit date	.0	26.7	60.0	13.3	1.87	.64	15
<u>Independent duty corpsmen</u>							
Advise to stop	2.2	26.2	30.2	41.4	3.11	.87	401
Advise pregnant users	39.8	6.1	8.8	45.4	2.60	1.40	377
Inform of benefits	5.2	31.2	35.4	28.2	2.87	.89	401
Explain the dangers	2.7	43.4	34.9	19.0	2.70	.80	401
Record results	32.2	33.7	19.3	14.8	2.17	1.04	398
Provide materials	31.3	46.7	16.4	5.6	1.96	.84	396
Make a referral	27.6	57.0	11.8	3.5	1.91	.73	398
Develop a plan	37.4	53.3	7.0	2.3	1.74	.68	398
Recommend gum	32.0	49.8	14.0	4.3	1.91	.79	400
Arrange F/U visit	63.9	30.6	3.0	2.5	1.44	.68	396
Set a quit date	56.4	40.8	1.8	1.0	1.47	.59	392

Appendix C

Navy health care professionals' attitudes toward the health care professional's role in reducing patient tobacco use

Statement	percent				Mean	SD	n
	(1) Strongly Disagree	(2) Smewhat Disagree	(3) Smewhat Agree	(4) Strongly Agree			
<u>Overall</u>							
It is the provider's responsibility to help patients quit	3.9	9.3	36.4	50.4	3.33	.80	1977
It is the provider's responsibility to convince patients to quit	4.5	12.1	44.4	39.0	3.18	.81	1989
Providers should be more active in speaking about tobacco use	4.1	15.4	53.0	27.5	3.04	.77	1975
Most people won't quit even with advice	5.1	16.0	46.3	32.6	3.07	.83	1991
Time can be better spent doing other things	32.3	35.9	25.8	6.0	2.05	.90	1983
People have enough problems without adding to them	73.0	21.1	4.3	1.6	1.34	.64	1982
<u>Medical Corps</u>							
It is the provider's responsibility to help patients quit	3.3	7.7	36.3	52.7	3.38	.77	1036
It is the provider's responsibility to convince patients to quit	2.7	10.1	42.5	44.6	3.29	.75	1046
Providers should be more active in speaking about tobacco use	2.8	14.4	52.9	30.0	3.10	.74	1035
Most people won't quit even with advice	7.3	20.0	46.0	26.8	2.92	.87	1046
Time can be better spent doing other things	40.1	36.2	19.2	4.5	1.88	.87	1044
People have enough problems without adding to them	79.1	16.3	2.7	1.9	1.28	.61	1041

Appendix C (Continued)

Statement	percent				Mean	SD	n
	(1) Strongly Disagree	(2) Smewhat Disagree	(3) Smewhat Agree	(4) Strongly Agree			
<u>Dental Corps</u>							
It is the provider's responsibility to help patients quit	4.4	11.3	40.0	44.4	3.24	.82	505
It is the provider's responsibility to convince patients to quit	5.7	15.4	47.4	31.5	3.05	.83	508
Providers should be more active in speaking about tobacco use	4.2	15.6	54.9	25.3	3.01	.76	506
Most people won't quit even with advice	2.4	11.4	47.9	38.3	3.22	.74	509
Time can be better spent doing other things	22.0	35.7	33.3	8.9	2.92	.91	504
People have enough problems without adding to them	69.0	25.3	4.5	1.2	1.38	.63	506
<u>Physician assistants</u>							
It is the provider's responsibility to help patients quit	8.0	8.0	16.0	68.0	3.44	.96	25
It is the provider's responsibility to convince patients to quit	8.0	.0	36.0	56.0	3.40	.87	25
Providers should be more active in speaking about tobacco use	.0	12.0	56.0	32.0	3.20	.65	25
Most people won't quit even with advice	.0	12.0	72.0	16.0	3.04	.54	25
Time can be better spent doing other things	32.0	40.0	24.0	4.0	2.00	.87	25
People have enough problems without adding to them	80.0	16.0	4.0	.0	1.24	.52	25

Appendix C (Continued)

Statement	percent				Mean	SD	n
	(1) Strongly Disagree	(2) Sinwhat Disagree	(3) Smwhat Agree	(4) Strongly Agree			
<u>Nurse practitioners</u>							
It is the provider's responsibility to help patients quit	.0	6.7	26.7	66.7	3.60	.63	15
It is the provider's responsibility to convince patients to quit	.0	6.7	26.7	66.7	3.60	.63	15
Providers should be more active in speaking about tobacco use	6.7	6.7	46.7	40.0	3.20	.86	15
Most people won't quit even with advice	6.7	40.0	46.7	6.7	2.53	.74	15
Time can be better spent doing other things	64.3	28.6	7.1	.0	1.43	.65	14
People have enough problems without adding to them	80.0	20.0	.0	.0	1.20	.41	15
<u>Independent duty corpsmen</u>							
It is the provider's responsibility to help patients quit	5.1	10.9	33.8	50.3	3.29	.85	396
It is the provider's responsibility to convince patients to quit	7.6	14.2	46.8	31.4	3.02	.87	395
Providers should be more active in speaking about tobacco use	7.6	18.3	50.8	23.4	2.90	.84	394
Most people won't quit even with advice	3.0	10.6	43.4	42.9	3.26	.77	396
Time can be better spent doing other things	23.7	35.1	34.6	6.6	2.24	.89	396
People have enough problems without adding to them	61.5	28.9	8.4	1.3	1.49	.70	395

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1 AGENCY USE ONLY (Leave blank)		2 REPORT DATE April 1992		3 REPORT TYPE AND DATE COVERED Interim
4 TITLE AND SUBTITLE Navy Health Care Provider Attitudes and Practices Concerning Patient Tobacco Use		5. FUNDING NUMBERS Program Element: 63706N Work Unit Number: M0095.005-6106		
6 AUTHOR(S) Terry L. Conway, Suzanne L. Hurtado Susan I. Woodruff				
7 PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Health Research Center P. O. Box 85122 San Diego, CA 92186-5122		8 PERFORMING ORGANIZATION Report No. 92-3		
9 SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Naval Medical Research and Development Command National Naval Medical Center Building 1, Tower 2 Bethesda, MD 20889-5044		10. SPONSORING/MONITORING AGENCY REPORT NUMBER		
11 SUPPLEMENTARY NOTES				
12a DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b DISTRIBUTION CODE	
13 ABSTRACT (Maximum 200 words) This study surveyed Navy health care providers (HCPs) regarding mandated patient-care practices related to tobacco use. Surveys were completed by 2,287 participants, and included 1,181 physicians, 548 dentists, 26 nurse practitioners, 19 physician assistants, and 513 independent duty corpsmen. Almost 80% of Navy HCPs reported that they usually asked new patients about tobacco use. Of 11 recommended practices, two-thirds to three-quarters of HCPs engaged in four behaviors with most or all of their tobacco-using patients: advise patients to stop, advise pregnant users of health risks to the fetus, inform patients of benefits of quitting, and explain dangers of using tobacco. Other recommended cessation strategies were not performed regularly (i.e., assist patients in setting quit date, develop cessation plan, provide self-help materials, make referrals to cessation programs, prescribe nicotine gum, or arrange follow-up visits). Higher percentages of NPs and PAs reported engaging in tobacco-related practices with their patients; physicians were intermediate, while lower percentages of dentists and IDCs reported tobacco-related practices. It is recommended that concerted efforts be made to train <u>all</u> Navy HCPs to use the National Cancer Institute's "Four A's" approach for patient tobacco cessation, and that organizational support to implement these procedures be mandated.				
14 SUBJECT TERMS Tobacco Use, Health Care Provider, Health Care Provider Attitudes, Patient Care Practices			15 NUMBER OF PAGES	
			16 PRICE CODE	
17 SECURITY CLASSIFICATION OF REPORT Unclassified	18 SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19 SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20 LIMITATION OF ABSTRACT Unlimited	

**END
FILMED**

DATE:

10-92

DTIC